

definite relation to the tannin; but whether part of the tannin is converted into chromogen or whether the latter is formed new in the presence of the tannin is undetermined.

The plants investigated were *Corydalis cava*, *C. pumila*, *C. Halleri*, *C. ochroleuca*, *C. lutea*, *Diclytra spectabilis*, *D. formosa*, *Adlumia cirrhosa*, *Fumaria officinalis*, *F. muralis*, *Parnassia palustris* and *Parietaria diffusa*.

NOTES AND NEWS.

PROFESSOR C. E. BESSEY made a collecting trip to the Bad Lands and Black Hills of Dakota during vacation.

PROFESSOR L. M. UNDERWOOD, of Syracuse University, is making a two months' collecting trip through the Southern States.

THE FIFTH VOLUME of Saccardo's *Sylloge Fungorum*, devoted to the Agaricineæ, has been issued. It is a thick octavo of 1146 pages, price 72 francs.

DR. A. DE BARY has declined the call to Leipsic as Dr. Schenk's successor, and the professorship has been tendered to Dr. W. Pfeffer, of Tübingen.

DR. GEORG WINTER, editor of *Hedwigia*, and known to many American botanists by correspondence, died at Connewitz, near Leipzig, Germany, August 16, after a long and severe illness.

✓ IN Dr. Farlow's address, printed in the August GAZETTE, an error occurs on page 180, which should be corrected. In the 13th line from the bottom the "not" should be stricken out, which materially alters the sense.

CHARLES S. PLUMB, of the New York Agricultural Experiment Station, and editor of *Agricultural Science*, has accepted the professorship of Agriculture, Botany and Entomology in the University of Tennessee, situated at Knoxville.

THE FIRST FASCIDE of volume 5 of the bulletin of the *Sociedade Brotariana*, bearing date of 1887, is chiefly devoted to a systematic description of the native orchids of Portugal by José d'A. Guimaraes. Thirty-nine species and nine genera are included.

TWELVE NEW SPECIES of North American mosses have recently been described by Dr. Karl Müller (Halle) in *Flora*, No. 14, pp. 219-225. They were collected in Alaska, Colorado, California, Tennessee and Florida. A new species from Labrador is described by Philibert in *Rev. Bryologique*, 1887, p. 55.

BABYHOOD for August has a timely article on poisonous plants, illustrated by accurate wood-cuts. Mothers and nurses are thereby warned against *Rhus Toxicodendron*, *R. venenata*, *Phytolacca decandra*, *Conium maculatum*, *Solanum Dulcamara*, *Veratrum viride*, *Datura Stramonium* and *Hyoscyamus niger*. The author should have specified more particularly the poisonous parts of these plants and whether they are poisonous by contact or when eaten.

A CORRESPONDENT, W. L. Morris, of Des Moines, Iowa, sends to the *Gardeners' Monthly* specimens of *Aphyllon fasciculatum* growing upon zonale geraniums. The geraniums were raised in pots and from cuttings since October last. The parasites were attached to the roots, and one to the buried stem of the cutting. They probably started from seeds in the potting soil taken from the woods.

THE *Journal of the New York Microscopical Society* is now issued quarterly, instead of in nine numbers a year as heretofore. The price remains unchanged. The two numbers, which form half of the present yearly installment, have been received, and together contain twenty-six pages, seven of which are devoted to original articles and the remainder to the minutes of the society and lists of the publications received.

THE COMMITTEE of the A. A. A. S. to secure more favorable ruling from the U. S. postal officials for the transmission of botanical specimens through the mails made no report at the New York meeting, and the committee was discontinued. The subject was agitated and a committee appointed at the earliest meetings of the Botanical Club, immediately after its organization, and strong efforts in various directions have been made to secure the object in view, but to no purpose. It is to be hoped that some means may yet be found for its accomplishment.

PROFESSOR L. F. WARD and Mr. F. H. Knowlton are collecting fossil plants in the Yellowstone National Park. The latter is giving particular attention to fossil woods, and already has nearly 300 specimens, each representing a separate tree. He writes: "Yesterday I noticed the largest fossil forest that I have yet seen. The largest tree measured twenty-six feet in circumference, and was about twelve feet high. Numerous others still standing ranged from two to seven feet in diameter and five to twenty feet in height, while the ground was literally covered with fallen logs and debris."

OUR READERS very well know the wide divergence of opinion as to the tubercles on roots of Leguminosæ. On June 16 Prof. H. Marshall Ward read a paper before the Royal Society, London, "On the tubercular swellings on the roots of *Vicia Faba*." Prof. Ward finds a definite fungus, whose affinities are with the Ustilagineæ, living in the tissues of the tubercle and producing by budding at the ends of the hyphæ the minute, germ-like bodies which have been mistaken for bacteria. He has succeeded in infecting the roots of *Vicia* growing in sterilized soil and in water with this fungus, and has watched its development. The hyphæ enter the root-hairs, cross the cortex and break up into fine branches.

THE REPORT of the Department of Agriculture for 1886, recently issued, contains interesting botanical matter. The botanist's report deals with the history of the division, an account of its work, descriptions of native clovers of economic interest, with five plates, and an article on the weeds of agriculture, by A. A. Crozier, with sixteen plates. The mycologist's report treats of diseases of the grape, celery-leaf blight, orange-leaf scab and potato rot, with seven plates, two maps showing distribution of mildew and black rot of the grape, and diagram showing loss from potato rot, together with an article by J. C. Arthur on pear blight, with a map, and one by W. Trelease on a spot disease of grass, with plate. The report of the forestry division is especially devoted to the practical work of forestry. The report of the bureau of animal industry contains considerable matter relating to bacteria, with several plates showing different forms and colored illustrations of cultures.

ABOUT TWO YEARS ago Mr. Charles Aldrich, of Webster City, Iowa, while making a collection of autographs, wrote to Grant Allen, of England, well known to our readers by his entertaining books on botanical subjects, and received a letter in reply which has recently been published in the *Critic*. The letter contains a statement of what is apparently one of Mr. Allen's inmost grievances; we take from it the following sentences: "For ten years I have been fighting a hard battle against poverty, in writing scientific works; and now I am just being compelled to retire from the hopeless contest and take to penny-a-lining for a livelihood at vulgar stories." He ascribes this in some measure to the lack of an international copyright, and says, "While there is only a very small and non-paying audience in England for popular scientific books, there is a very large and paying audience in America," the latter buying pirated editions of his works from which he receives no profit. He adds: "I feel it all the harder because I was myself born in America, brought up on one of the Thousand Islands, and taught my first rudiments of higher education beneath the shadow of the elms at Yale College, New Haven."

THE SOCIETY for the Promotion of Agricultural Science held its annual meeting in New York August 8 and 9. The attendance was good and the programme an interesting one. The following is a summary of the papers containing items of botanical interest: "Some suggestions as to experimenting with grasses," by W. J. Beal, formulated the methods by which the best tests of the economic value of grasses can be obtained. "The peg in germinating cucurbitaceous plants," by B. D. Halsted, gives the origin, development and service of this temporary organ. "A hint as to nitrogen appropriation in clovers," by B. D. Halsted, in which the author suggests that the bacteria, which he finds in a slimy envelope about the root-tips of clover, assist in nitrification, and thus render this crop so superior as an accumulator of nitrogen over timothy, which does not possess this special feature. He also thinks that the tubercles on roots of the Leguminosæ aid in the same manner by the active particles within them, which he determines by staining tests to be bacteria. "Hog cholera and swine plague," by D. E. Salmon, contains further data and observations relating to the two distinct germs which severally produce these diseases. "On a new fungus disease of the vine—*Greeneria fuliginea*," by F. L. Scribner and Pierre Viala, describes an "imperfect" fungus found on the fruit and pedicels of cultivated grapes in North Carolina; both the genus and species are new. "Sorghum as a sugar producing plant," by Harvey W. Wiley. "The absence of certain native plants in soils containing a large percentage of lime," by W. R. Lazenby, is an attempt to explain the distribution of the American chestnut, and of blueberry, huckleberry, trailing arbutus, and other members of the heath family by the amount of lime in the soil. "Old English vegetables," by E. L. Sturtevant, is an enumeration of the plants mentioned in a cook-book intended for the nobility of the time of Richard II, published in England about 1390. "The relative times of germination, leafing, blossoming, and size of fruit of species of American grapes," by T. V. Munson, gives important data in tabulated form of twenty-one species of *Vitis* in the United States, including one inedited species—*V. Texana*.